

**IN THE CLAIMS**

Please cancel claims 1-36 and insert in place thereof the following new claims:

37. An isolated and substantially pure receptor encoded by a DNA sequence, comprising a sequence of nucleotides that encode an human N-methyl-D-aspartate receptor subtype, wherein said sequence of nucleotides is set forth in SEQ ID NO. 55.
38. A substantially pure human N-methyl-D-aspartate receptor subtype comprising the sequence of amino acids as set forth in SEQ ID NO: 56.
39. The receptor according to claim 37, where the receptor is an human N-methyl-D-aspartate receptor type 2D subunit (NMDAR2D).
40. A method for detecting a binding partner for the receptor of claim 37 in a sample suspected of containing the binding partner, comprising:
  - (i) contacting the sample with the receptor under conditions favoring binding of the receptor to the binding partner;
  - (ii) determining presence of the binding partner in the sample by detecting binding of the receptor to the binding partner.
41. A method of identifying a polypeptide which is active in a signal transduction pathway of a cell of which the receptor of claim 37 is a component, said method comprising:
  - (a) contacting a cell extract suspected of containing the polypeptide with an antibody that specifically binds to the polypeptide under conditions favoring formation of an antibody/polypeptide complex.
  - (b) identifying the antibody/polypeptide complex, and
  - (c) assaying the complex obtained in (b) to identify any polypeptide bound to the polypeptide other than the antibody.

42. A method for screening for the presence of a neurological disorder, comprising assaying a tissue from a subject to determine level of expression of the receptor according to claim 37, wherein increased or reduced level of the receptor compared to a normal level is an indication that the subject is at risk of developing the neurological disorder.
43. A method for following progress of a therapeutic régime designed to alleviate a condition characterized by abnormal expression of the receptor of claim 37, comprising:
  - (a) assaying a sample from a subject to determine level of a parameter selected from the group consisting of (i) a receptor encoded by the nucleotide sequence of SEQ. ID. NO. 55 and (ii) a receptor having the amino acid sequence as set forth in SEQ. ID. NO. 56, at a first time point;
  - (b) assaying level of the parameter selected in (a) at a second time point and
  - (c) comparing the level at the second time point to the level determined in (a) as a determination of effect of the therapeutic régime.
44. A host cell transformed with a nucleic acid molecule that encodes the polypeptide of claim 37.
45. An antibody that is specifically binds to the polypeptide of claims 37.

**STATUS OF CLAIMS:**

Claims 1-36 were pending.

New claims 37-45 are added herein.

Claims 37 - 45 are presented for consideration.